

What is claimed is:

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1. An apparatus for transmitting multimedia data to a set-top box for distribution to a headend of a cable television, the apparatus comprising:

means for inputting a signal containing multimedia data;

means for compressing the multimedia data;

10 means for packetizing the compressed multimedia data with a header including at least a source identifier and an order identifier; and

means for outputting the packetized multimedia data to a data port of a set-top box.

further comprising capture means for capturing the input signal containing

15 multimedia data.

2. The apparatus according to claim 1, wherein the capture means is an analog to digital converter.

20 3. The apparatus according to claim 1, wherein the capture means changes the format of the signal.

4. The apparatus according to claim 1, wherein the means for compression performs MPEG encoding.

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5. An apparatus for facilitating video conferencing for use with a cable television network having a headend, the apparatus comprising:

an input for receiving a signal having multimedia data;

a demodulator for demodulating the signal;

30 an analog to digital converter for digitizing the multimedia data;

an output module for facilitating the transport of the digitized multimedia data to the headend.

6. An apparatus according to claim 5, further comprising:  
an encoder operably coupled to the output module for compressing the digitized multimedia data prior to receipt by the headend.
7. 7. An apparatus for receiving a multimedia data signal and transmitting a compressed digital signal to a set-top box of a cable television network, the apparatus comprising:  
an input for receiving the multimedia data signal;  
a capture module for formatting the multimedia data signal creating a formatted digital signal;  
an encoder for compressing the formatted digital signal creating a compressed digital signal;  
a packetization module for packetizing the compressed digital signal and including a header identifying packet order and source; and  
an output capable of being operably coupled to the set-top box for transmitting the packets to a headend of the cable television network.
8. The apparatus according to claim 7, wherein the packetizing module attaches a real time protocol header to each packet.
9. The apparatus according to claim 7, wherein the multimedia data signal is raw data from a charged coupled device.
10. The apparatus according to claim 7, wherein the capture module formats the multimedia data signal into a standard YUV format.
11. The apparatus according to claim 7 wherein the encoder employs MPEG compression algorithms.
12. The apparatus according to claim 7 wherein the packetization module packetizes the signal according to a real-time protocol.
13. The apparatus according to claim 7 wherein the real-time protocol is RTP.

14. A system for multi-media transmission of data in a cable television network,  
the system for multi-media transmission comprising:

a multimedia device; and

a set-top box

5 wherein the multimedia device has an input port for receiving a multimedia  
signal and an output port for sending to the set-top box a packetized compressed  
digital representation of the multimedia signal;

wherein the set-top box receives the packetized compressed digital  
representation of the multimedia signal and forwards the signal to a headend of  
10 the cable television network.

15 15. The system according to claim 14, wherein the multimedia device packetizes  
the multimedia signal wherein the header information of each packet only includes a  
source identifier and an order identifier.

16. The system according to claim 15 wherein the multimedia device further  
includes an action identifier for indicating an interactive session type.

17. The system according to claim 15 wherein the set-top box receives an  
20 interrupt from the multimedia device prior to receiving the multimedia signal.

18. The system according to claim 15 wherein the set-top box does not add  
header information prior to sending the multimedia signal.

25 19. A system for multimedia transmission of data in a cable television network,  
the system comprising:

a set-top box having a data port and a two-way communication cable port;

a multimedia device for receiving multimedia data signal and providing to the  
data port of the set-top box a compressed packetized multimedia data signal;

30 a headend operably coupled to the cable port of the set-top box for receiving,  
processing, and forwarding to a destination at least the multimedia data contained within  
the compressed packetized multimedia data signal.

20. The system according to claim 19, wherein based upon an input signal to the set-top box an interactive session is effectuated between the set-top box and the headend.

21. The system according to claim 20, wherein the interactive session may be  
5 video conferencing.

22. The system according to claim 21, wherein the headend receives destination multimedia data in a signal from the destination, the headend directs the destination multimedia data to the set-top box wherein the destination multimedia data is  
10 decompressed and provided to a television for display.

23. The system according to claim 19, wherein the multimedia device packetizes the multimedia data signal with a header containing a set-top box identifier and packet order identifier.  
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24. The system according to claim 23 wherein the destination multimedia data is sent to the set-top box based upon the set-top box identifier in the multimedia data signal.

25. The system according to claim 23 wherein the headend receives a destination  
20 address for the compressed packetized multimedia data signal originating at the set-top box.

26. The apparatus according to claim 6, further comprising a packetizer which creates packets from the compressed digitized multimedia data, wherein the packets do  
25 not provide a destination address and include origination information.

27. The apparatus according to claim 7 wherein the packetization module includes a header to each packet which does not include a destination address.

30 28. The system according to claim 14 wherein the multimedia device packetizes the multimedia signal wherein the header information does not include a destination address.